DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-028133 Address: 333 Burma Road **Date Inspected:** 08-Aug-2012

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1930 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: CWI Present: Yes No As noted below **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: SAS OBG**

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

QA NDT

This QA Inspector performed Magnetic Particle (MT) testing on the transverse deck splice at 13E PP121.6. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26.2.1. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications. This QA Inspector performed an Ultrasonic (UT) inspection on approximately 10% of 13E PP121.6. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed the indications listed below at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

12E-E2.1 (Interior)

This QA Inspector observed the CJP welding of the longitudinal deck splice located on the east orthotropic box girders identified as 12E-E2.1. The welding was performed by Xiao Jian Wan ID-9677 utilizing the WPS identified as ABF-WPS-D15-3110-4. This QA Inspector also observed the QC inspector perform the visual

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inspection and verify the welding parameters during the production welding. The inspections performed by Salvador Merino appeared to comply with the contract specifications. The welding of this weld joint was not completed during this scheduled shift.

12E-E2.1 (Interior)

This QA Inspector observed the CJP welding of the beam web located on the east orthotropic box girders identified as 12E-E2.1. The welding was performed by Chris Bowles ID-9317 utilizing the WPS identified as ABF-WPS-D15-3110-4. This QA Inspector also observed the QC inspector perform the visual inspection and verify the welding parameters during the production welding. The inspections performed by Salvador Merino appeared to comply with the contract specifications. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work at this location was in progress and appeared to be in general conformance with the contract documents.

QC UT (Interior)

This QA Inspector randomly observed QC Inspectors Jesse Cayabyab, John Pagliero and Scott Kortum at 12E-E2. 1 performing Ultrasonic Testing (UT) on the interior of the OBG. The QC Inspectors were observed scanning from each side of the weld and the scanning pattern as described in D1.5 6.24. The QC Inspectors were noted as identifying rejectable indications and the work at these locations is ongoing and appeared to be in general conformance with the contract documents and SE-UT-D1.5-CT-100-Revision 4.

QA Summary

The welding was performed in the overhead and vertical positions utilizing the Flux Core Arc Welding (FCAW) and Shielded Metal Arc Welding (SMAW) The welding parameters and surface temperatures were verified by the QC inspector's utilizing a Fluke 337 clamp meter to measure the electrical welding parameters and Tempil Heat Indicators for verifying the preheat and interpass temperatures. At the time of the observation no issues were noted by the QA Inspector.

Summary of Conversations:

No relevant discussions to report.



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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer